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ABSTRACT

2 Hybrid interpolation methods are provided that employ more than one interpolation algorithm
3 and choose the most appropriate interpolation algorithm that provides high quality images with
4 a minimum processing time. Prediction means is first applied to predict which interpolation is
5 most appropriate for a given pixel in terms of complexity and performance. Then, a simple
6 interpolation algorithm is used for pixels for which the simple interpolation algorithm provides
7 acceptable performances and a complex interpolation algorithm is used for pixels for which the
8 complex interpolation algorithm, which requires a larger number of operations, significantly
9 outperforms the simple interpolation algorithm. Consequently, it is possible to obtain high
10 quality images without significantly increasing the processing time.

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